

## THAT WHICH IS CLAIMED IS:

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1. An olefin trimerization system comprising, in combination:
- a) a reactor,
  - b) at least one inlet line into said reactor for olefin reactant and catalyst
- system,
- 5 c) effluent lines from said reactor for trimerization reaction products, and
- d) at least one separator to separate desired trimerization reaction

products;

wherein said catalyst system comprises a chromium source, a pyrrole-containing compound and a metal alkyl.

2. A trimerization system in accordance with claim 1 further comprising one or more filters.
3. A trimerization system in accordance with claim 1 further comprising a catalyst system deactivator inlet line following the reactor.
4. A trimerization system in accordance with claim 1 further comprising a reactor inlet line for olefin feed from a second source.
5. A trimerization system in accordance with claim 1 further comprising a separator inlet line for a stream of heavies to be separated.
6. A trimerization system in accordance with claim 1 further comprising a reactor inlet line for trimerization reaction solvent.
7. A trimerization system in accordance with claim 1 wherein said olefin feed comprises olefins compounds having from about 2 to about 30 carbon atoms per molecule.
8. A trimerization system in accordance with claim 7 wherein said olefin feed compound is ethylene.
9. A trimerization system in accordance with claim 1 wherein said desired trimerization reaction products comprise olefin compounds having from about 6 to about 100 carbon atoms per molecule.

